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WORKMAN NYDEGGER/MICROSOFT
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UT 84111

EXAMINER

PONIKIEWSKI, TOMASZ

ART UNIT	PAPER NUMBER
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2165

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/607,812	Applicant(s) MILLIGAN ET AL.	
	Examiner Tomasz Ponikiewski	Art Unit 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36, 41-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on 17-April-2007 has been received and entered.

Applicant's amendment has overcome previous claim objections. Claims 1-36 and 41-43 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-36 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al. (US PUB 2004/0093326 A1) in view of Copperman et al. (U.S. 6,711,585 B1) and further in view of Szabo (US 7,181,438 B1).

As per claim 1 Carson et al is directed to a computing environment, a method to obtain taxonomy information for one or more nodes in a taxonomy, the method comprising:

receiving a request for taxonomy-related information, the request including identification data identifying a node within the taxonomy and relationship data identifying a plurality of specified relationships a node is to have with the identified node (page 4, paragraph 0032; lines 4-5; page 7, paragraph 0071; page 7, paragraph 0072, lines 6-7; page 7, paragraph 0074, lines 2-4);

Art Unit: 2165

querying one or more databases in accordance with the identification data and the relationship data to obtain taxonomy-related information for any nodes having at least one of the plurality of specified relationships with the identified node, the nodes of each database comprising at least one of a plurality of root nodes (figure 2A; page 6, paragraph 0056, lines 8-9; page 7, paragraph 0068, page 7, paragraph 0070, lines 3-10); and

receiving taxonomy-related information having at least one identifier that corresponds to a node having at least one of the plurality of specified relationships with the identified node in response to the query (page 3, paragraph 0025, lines 3-5).

Carson et al. does not teach a first key and a second key.

Copperman et al. teaches first key and second key (Copperman et al., column 30, lines 66-67; column 31, lines 1-16)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Carson et al. by teachings of Copperman et al. to include first key and second key because the tags help user in refining the request (Copperman et al., column 30, lines 64-65).

Carson et al. as modified still does not teach extracting the first key representing the identification data and the second key representing the relationship data from the request.

Copperman et al. teaches extracting the first key representing the identification data and the second key representing the relationship data from the request (Copperman et al., column 30, lines 66-67; column 31, lines 1-16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further combine the Carson et al. as modified by teachings of Copperman et al. to include extracting the first key representing the identification data and the second key representing the relationship data from the request because the tags help user in refining the request (Copperman et al., column 30, lines 64-65).

Carson et al. as modified still does not teach the taxonomy-related information being presentable in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy.

Szabo teaches teach the taxonomy-related information being presentable in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy (Szabo, column 69, lines 14-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further combine the Carson et al. as modified by teachings of Szabo to include the taxonomy-related information being presentable in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy because the format shows the user a path to the requested information.

As per claim 2 Carson et al. as modified is directed to returning the taxonomy-related information in response to the request (Carson et al., page 4, paragraph 0040, lines 7-8).

As per claim 3 Carson et al. as modified is directed to the identification data comprises an identifier of a taxonomy and the relationship data indicates a root node relationship, and wherein returning the taxonomy-related information in response to the request comprises returning an identifier of at least one root node within the taxonomy (Carson et al., page 2, paragraph 0010, lines 6-14).

As per claim 4 Carson et al. as modified is directed to returning the taxonomy-related information in response to the request comprises identifying the relationship along with each other node identifier that corresponds to the relationship data (Carson et al., page 2, paragraph 0010, lines 6-14).

As per claim 5 Carson et al. as modified is directed to the identification data comprises an identifier of a taxonomy and a node identifier of a node within the taxonomy, and wherein returning the taxonomy-related information in response to the request comprises returning at least one other node identifier that corresponds to the relationship data (Carson et al., page 7, paragraph 0073, lines 2-7).

As per claim 6 Carson et al. as modified is directed to the relationship data indicates a parent relationship (Carson et al., figure 2a, wherein retrieval (244) is parent of healthcare(261)).

As per claim 7 Carson et al. as modified is directed to the relationship data indicates a child relationship (Carson et al., figure 2a, wherein healthcare (261) is child of retrieval (244)).

As per claim 8 Carson et al. as modified is directed to returning the taxonomy-related information in response to the request comprises returning an identifier of another taxonomy (Carson et al., page 7, paragraph 0068, lines 10-12).

As per claim 9 Carson et al. as modified is directed to returning the taxonomy-related information in response to the request further comprises returning at least one node identifier corresponding to at least one node in another taxonomy (Carson et al., page 7, paragraph 0068, lines 7-10).

As per claim 10 Carson et al. as modified is directed to the relationship data indicates an equivalence relationship (Carson et al., figure 2a wherein healthcare (261) and banking (260) are on the same level in the taxonomy).

As per claim 11 Carson et al. as modified is directed to returning the taxonomy-related information in response to the request further comprises returning at least one attribute value that indicates whether a node corresponding to that attribute value comprises a classification node (Carson et al., page 7, paragraph 0072, lines 3-6).

As per claim 12 Carson et al. as modified is directed to returning the taxonomy-related information in response to the request further comprises returning at least one text string (Carson et al., page 5, paragraph 0048, second column, lines 9-10).

As per claim 13 Carson et al. as modified is directed to the request includes at least one other set of identification data and relationship data, and wherein the response returns data corresponding to the request in the order in which the identification data and relationship data was received such that the first set of identification data and relationship data corresponds to a first part of the response and the at least other set of identification data and relationship data corresponds to a second part of the response. (Carson et al., page 7, paragraph 0068; page 7, paragraph, 0073, lines 1-4).

As per claim 14 Carson et al. as modified is directed to the request comprises an XML message, and wherein returning the taxonomy-related information in response to the request further comprises formatting the response as an XML message (Carson et

Art Unit: 2165

al., page 4, paragraph 0040, lines 5-7, wherein transportation could mean both request and response).

As per claim 15 Carson et al. as modified is directed to the taxonomy-related information corresponds to a taxonomy maintained at a UDDI server (Carson et al., page 1, paragraph 0003, lines 6-8; page 7, paragraph 0068, line 1).

As per claim 16 Carson et al. as modified is directed to a recordable-type computer-readable medium having computer-executable instructions configured to execute the method of claim 1 in computer system (see rejection for claim 1, Carson et al., page 5, paragraph 0044, lines 5-7).

As per claim 17 Carson et al. is directed to a in a computing environment, a method to obtain taxonomy information for one or more nodes in a taxonomy comprising a hierarchy of nodes where the taxonomy categorizes web services or web service providers, the method comprising:

constructing a request for taxonomy data regarding one or more specified nodes comprising at least one of plurality of root nodes, the request including identification data from which a node within the taxonomy is identifiable and at least one relationship qualifier that identifies a plurality of desired relationships the node is to have with the specified nodes (page 4, paragraph 0032, lines 4-5; page 7, paragraph 0071; page 7, paragraph 0072, lines 6-7; page 7, paragraph 0074, lines 2-4);

communicating the request to a server (page 1, paragraph 0003, lines 6-8);
receiving a response from the server regarding the requested taxonomy data including identification information regarding the node corresponding to the identification data and relationship information corresponding to the relationship qualifier (page 4, paragraph 0040, lines 7-8; page 7, lines 0068); and
presenting information about at least a portion of the taxonomy including the received response to the computer user, the information based on the identification information and based on the relationship information in the response (page 4, paragraph 0040, line 7-12; page 7, paragraph 0068).

Carson et al. does not teach a first key and a second key.

Copperman et al. teaches first key and second key (Copperman et al., column 30, lines 66-67; column 31, lines 1-16)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Carson et al. by teachings of Copperman et al. to include first key and second key because the tags help user in refining the request (Copperman et al., column 30, lines 64-65).

Carson et al. as modified still does not teach the in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy.

Szabo teaches teach in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy (Szabo, column 69, lines 14-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further combine the Carson et al. as modified by teachings of Szabo to include in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy because the format shows the user a path to the requested information.

As per claim 18 Carson et al. as modified is directed to the identification data comprises a unique identifier and the relationship qualifier indicates a root node relationship with the taxonomy, and wherein the response includes information about at least one root node in the taxonomy (Carson et al., page 7, paragraph 0070, lines 7-8).

As per claim 19 Carson et al. as modified is directed to the identification data further includes node identification data from which a node within the taxonomy is operable to be identified (Carson et al., page 7, paragraph 0070, lines 1-3; page 7, paragraph 0071, lines 1-3).

As per claim 20 Carson et al. as modified is directed to the relationship qualifier indicates a parent node of a node identified by the node identification data, and wherein the response includes information about the parent node (Carson et al., page 7, paragraph 0074, line 2).

Art Unit: 2165

As per claim 21 Carson et al. as modified is directed to the relationship qualifier indicates a child node of a node identified by the node identification data, and wherein the response includes information about at least one child node, if any exist (Carson et al., page 2, paragraph 0010, lines 6-14, wherein the child node is in a level below one mentioned in request).

As per claim 22 Carson et al. as modified is directed to the relationship qualifier indicates an equivalent node of a node identified by the node identification data (Carson et al., page 2, paragraph 0010, lines 6-14, wherein the equivalent node is in on the same level as one mentioned in request).

As per claim 23 Carson et al. as modified is directed to receiving the response from the server further includes receiving an attribute value that indicates whether a node in the taxonomy is intended as a classification node (Carson et al., figure 3 (30); page 7, paragraph 72).

As per claim 24 Carson et al. as modified is directed to receiving the response from the server further includes receiving at least one text string that corresponds to a node in the taxonomy (Carson et al., page 5, paragraph 0048, second column, lines 9-10).

As per claim 25 Carson et al. as modified is directed to constructing a request for taxonomy data comprises constructing an XML message (Carson et al., page 4, paragraph 0040, lines 5-7).

As per claim 26 Carson et al. as modified is directed to communicating the request to a server comprises sending the XML message to a UDDI server (Carson et al., page 1, paragraph 0003, lines 6-8; page 4, paragraph 0040, lines 5-7; page 7, paragraph 0068, line 1).

As per claim 27 Carson et al. as modified is directed to a computer-readable medium having computer-executable instructions configured to execute the method of claim 17 in a computer system (see rejection for claim 17, Carson et al., page 5, paragraph 0044, lines 5-7).

As per claim 28 Carson et al. is directed to in a computing environment, a system that obtains taxonomy information for one or more nodes in a taxonomy, the system comprising:

a client, the client including an application program that presents taxonomy-related data using received taxonomy data regarding one or more specified nodes, the specified nodes comprising at least one of a plurality of root nodes, the received taxonomy data including identification information regarding a node corresponding to the identification data and relationship information corresponding to a relationship

qualifier (page 3, paragraph 0028, lines 3-4; page 3, paragraph 0027, lines 3-6 page 7, paragraph 0071; page 7, paragraph 0072, lines 6-7; page 7, paragraph 0074, lines 2-4); and

a server that maintains taxonomy data, the server configured to receive taxonomy-related requests from the client seeking identification information regarding an existing node and relationship information that indicates a plurality of specified relationships between the identified node and the specified nodes, and in response to each request, to locate the relationship information corresponding to the specified nodes in the taxonomy and to return a response to the client.

Carson et al. does not teach a first key and a second key.

Copperman et al. teaches first key and second key (Copperman et al., column 30, lines 66-67; column 31, lines 1-16)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Carson et al. by teachings of Copperman et al. to include first key and second key because the tags help user in refining the request (Copperman et al., column 30, lines 64-65).

Carson et al. as modified still does not teach the taxonomy-related data including information about at least a portion of the taxonomy in a hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy.

Szabo teaches teach the taxonomy-related data including information about at least a portion of the taxonomy in a hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy (Szabo, column 69, lines 14-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further combine the Carson et al. as modified by teachings of Szabo to include the taxonomy-related data including information about at least a portion of the taxonomy in a hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy because the format shows the user a path to the requested information.

As per claim 29 Carson et al. as modified is directed to the relationship information corresponding to the node in the specified taxonomy comprises a root qualifier (Carson et al., page 2, paragraph 0010, lines 6-14).

As per claim 30 Carson et al. as modified is directed to the relationship information corresponding to the node in the specified taxonomy comprises a parent qualifier (Carson et al., figure 2a, wherein retrieval(244) is parent of healthcare(261)).

As per claim 31 Carson et al. as modified is directed to the relationship information corresponding to the node in the specified taxonomy comprises a child qualifier (Carson et al., figure 2a, wherein healthcare(261) is child of retrieval(244)).

As per claim 32 Carson et al. as modified is directed to comprising a database in which the server maintains the taxonomy data (Carson et al., page 6, paragraph 0056, lines 8-9).

As per claim 33 Carson et al. as modified is directed to the taxonomy-related requests from the client comprise XML messages (Carson et al., page 4, paragraph 0040, lines 5-7, wherein transportation could mean both request and response).

As per claim 34 Carson et al. as modified is directed to the response to the client comprises an XML message (Carson et al., page 4, paragraph 0040, lines 5-7, wherein transportation could mean both request and response).

As per claim 35 Carson et al. as modified is directed to the server comprises a UDDI server (Carson et al., page 1, paragraph 0003, lines 6-8; page 7, paragraph 0068, line 1).

As per claim 36 Carson et al. as modified is directed to the client provides the request to the server by calling an application programming interface, the application programming interface formatting the request as a message for communicating with the server and returning the response to the client in response to the application programming interface call (Carson et al., page 5, paragraph 0049, lines 11-12).

As per claim 41 Carson et al. is directed to in a computing environment, a system that obtains taxonomy information for one or more nodes in a taxonomy, the system comprising:

means for receiving a request that includes identification data from which a node within the taxonomy is identifiable and relationship data identifying a plurality of desired relationships between the node and the identified node corresponding to the taxonomy (page 4, paragraph 0032, lines 4-5; page 7, paragraph 0071; page 7, paragraph 0072, lines 6-7; page 7, paragraph 0074, lines 2-4);

means for querying one or more databases in accordance with the identification data and the relationship data to obtain taxonomy-related information for any nodes having at least one of the plurality of specified relationships with the identified node, the nodes of each database comprising at least one of a plurality of root nodes; (figure 2A; page 6, paragraph 0056, lines 8-9; page 7, paragraph 0068, page 7, paragraph 0070, lines 3-10) and

means for receiving taxonomy-related information having at least one identifier that corresponds to a node having at least one of the plurality of specified relationships with the identified node in response to the query (page 3, paragraph 0025, lines 3-5).

Carson et al. does not teach a first key and a second key.

Copperman et al. teaches first key and second key (Copperman et al., column 30, lines 66-67; column 31, lines 1-16)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Carson et al. by teachings of Copperman et al. to include first key and second key because the tags help user in refining the request (Copperman et al., column 30, lines 64-65).

Carson et al. as modified does not teach means for extracting the first key representing the identification data and the second key representing the relationship data from the request.

Copperman et al. teaches means for extracting the first key representing the identification data and the second key representing the relationship data from the request (Copperman et al., column 30, lines 66-67; column 31, lines 1-16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further combine the Carson et al. by teachings of Copperman et al. to include means for extracting the first key representing the identification data and the second key representing the relationship data from the request because the tags help user in refining the request (Copperman et al., column 30, lines 64-65).

Carson et al. as modified still does not teach the taxonomy-related information being presentable in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to further combine the Carson et al. as modified by teachings of Szabo to include the taxonomy-related information being presentable in hierarchical format, the hierarchy being based on the node's relationship with other nodes in the taxonomy because the format shows the user a path to the requested information.

As per claim 42 Carson et al. as modified is directed to means for returning the taxonomy-related information in response to the request (Carson et al., page 5, paragraph 0049, lines 11-12, wherein "the taxonomy" could mean "content").

As per claim 43 Carson et al. as modified is directed to the means for querying the database comprises request handling means in a UDDI-server environment (Carson et al., page 1, paragraph 0003, lines 6-8; page 7, paragraph 0068, line 1).

Response to Arguments

4. Applicant's arguments with respect to claims 1-36 and 41-43 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomasz Ponikiewski whose telephone number is (571)272-1721. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571)272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2165

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tomasz Ponikiewski
June 18, 2007



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100